



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,583	09/29/2003	Masaaki Hiroki	0756-7195	9990

31780 7590 07/05/2005

ERIC ROBINSON
PMB 955
21010 SOUTHBANK ST.
POTOMAC FALLS, VA 20165

EXAMINER

LESPERANCE, JEAN E

ART UNIT PAPER NUMBER

2674

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,583

Applicant(s)

HIROKI, MASA AKI

Examiner

Jean E. Lesperance

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10-19-03 9-29-03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 to 12 are presented for examination.
2. The Information Disclosure Statement filed September 29, 2003 and October 17, 2003 are considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being unpatentable over US Patent # 5,847,688 by Ohi et al.

Regarding claim 1, Ohi et al. teach video input signal (RGB) Fig.6 (11) corresponding to providing an original video signal; the switching signal (inverter) corresponding to modifying the original video signal; two video signals going to H-driver (upper) and H-driver (lower) Fig.6 (3) corresponding to inputting the pair of video signals to one source driver circuit; an H-driver (lower) video signal Fig.6 (3) corresponding to selecting one of the pair of the video signals by the source driver circuit and applying the selected video signal to an odd signal line of the signal lines of a pixel region; and an H-driver (upper) Fig.6 (3) corresponding to applying the other video signal to an even signal line of the signal lines of a pixel region.

Regarding claim 2, Ohi et al. teach video input signal (RGB) Fig.6 (11) corresponding to providing an original video signal; the switching signal (inverter) corresponding to modifying the original video signal; two video signals going to H-driver (upper) and H-driver (lower) Fig.6 (3) corresponding to inputting the pair of video signals to one source driver circuit; an H-driver (lower) video signal Fig.6 (3) corresponding to selecting one of the pair of the video signals by the source driver circuit and applying the selected video signal to an odd signal line of the signal lines of a pixel region; and an H-driver (upper) Fig.6 (3) corresponding to applying the other video signal to an even signal line of the signal lines of a pixel region.

Regarding claim 3, Ohi et al. teach video input signal (RGB) Fig.6 (11) corresponding to providing an original video signal; the switching signal (inverter) corresponding to modifying the original video signal; two video signals going to H-driver (upper) and H-driver (lower) Fig.6 (3) corresponding to inputting the pair of video signals to one source driver circuit; an H-driver (lower) video signal Fig.6 (3) corresponding to selecting one of the pair of the video signals by the source driver circuit and applying the selected video signal to an odd signal line of the signal lines of a pixel region; and an H-driver (upper) Fig.6 (3) corresponding to applying the other video signal to an even signal line of the signal lines of a pixel region.

Regarding claim 4, Ohi et al. teach video input signal (RGB) Fig.6 (11) corresponding to providing an original video signal; the switching signal (inverter) corresponding to modifying the original video signal; two video signals going to H-driver (upper) and H-driver (lower) Fig.6 (3) corresponding to inputting the pair of video

Art Unit: 2674

signals to one source driver circuit; an H-driver (lower) video signal Fig.6 (3) corresponding to selecting one of the pair of the video signals by the source driver circuit and applying the selected video signal to an odd signal line of the signal lines of a pixel region; and an H-driver (upper) Fig.6 (3) corresponding to applying the other video signal to an even signal line of the signal lines of a pixel region.

Regarding claim 5, Ohi et al. teach video input signal (RGB) Fig.6 (11) corresponding to providing an original video signal; the switching signal (inverter) corresponding to modifying the original video signal; two video signals going to H-driver (upper) and H-driver (lower) Fig.6 (3) corresponding to applying a first and a second video signals to a source driver; the inverter Fig.6 (13) inverts the polarity of H-driver (upper) and H-driver (lower) where they are opposite to each other.

Regarding claim 6, Ohi et al. teach the display panel Fig.6 (17) where the pixel are opposite to each other.

Regarding claim 7, Ohi et al. teach the display panel Fig.8 (17) where the pixel are opposite to each other.

Regarding claim 8, Ohi et al. teach video input signal (RGB) Fig.6 (11) corresponding to providing an original video signal; the switching signal (inverter) corresponding to modifying the original video signal; two video signals going to H-driver (upper) and H-driver (lower) Fig.6 (3) corresponding to applying a first and a second video signals to a source driver; the inverter Fig.6 (13) inverts the polarity of H-driver (upper) and H-driver (lower) where they are opposite to each other.

Art Unit: 2674

Regarding claim 9, Ohi et al. a pixel dot (Fig.7) where voltage are opposite to each other.

Regarding claim 10, Ohi et al. teach a pixel dot (Fig.7) where voltage are opposite to each other corresponding to said display device is driven in a dot inversion method.

Regarding claim 11, Ohi et al. teach an LCD panel Fig.6 (17) corresponding to a liquid crystal panel including a switching element for each of pixel electrodes; scan line (Fig.2A) corresponding to a scanning line drive circuit for driving scanning lines of the liquid crystal panel; Data line (Fig.2A) corresponding to a signal line drive circuit for driving signal lines of the liquid crystal panel; the control Fig.6 (20) corresponding to a signal processing circuit and corresponding to a control circuit for controlling drive of the liquid crystal panel and the signal processing circuit, wherein the signal processing circuit is connected to the liquid crystal panel through a plurality of video signal lines, and includes D/A conversion circuits connected to the plurality of video signal lines, the number of D/A conversion circuits being equal to the number of video signal lines.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent # 5,847,688 in view of US Patent # 6,097,352.

Regarding claim 12, Ohi et al. teach a LCD panel Fig.6 (17) but fails to teach a projection with light source. However, Zavracky et al. teach a lamp 410 projects white or RGB light through a field lens 420. The lamp 410 can either be a continuous light source or a flashing light source. The light output from the field lens 420 is collimated on an electronic color filter system 430. it would have been obvious to a person of ordinary skill in the art to utilize the projection as taught by Zavracky et al. in the LCD panel disclosed by Ohi et al. because this would a video display for displaying an image from the video source.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

Art Unit: 2674

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

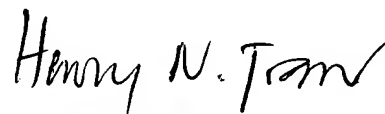
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



Date 6/23/2005

Art Unit 2674



HENRY N. TRAN
PRIMARY EXAMINER